Sofosbuvir-based direct-acting antivirals for patients with decompensated hepatitis C virus–related cirrhosis

Chen-Hua Liu[a,b,c,*], Chun-Jen Liu[a,b,d], Jia-Horng Kao[a,b,d,e]

[a]Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan, ROC; [b]Hepatitis Research Center, National Taiwan University Hospital, Taipei, Taiwan, ROC; [c]Department of Internal Medicine, National Taiwan University Hospital, Yun-Lin Branch, Douliou, Taiwan, ROC; [d]Graduate Institute of Clinical Medicine, National Taiwan University College of Medicine, Taipei, Taiwan, ROC; [e]Department of Medical Research, National Taiwan University Hospital, Taipei, Taiwan, ROC.

DEAR EDITOR,

We read with great interest the original contribution regarding the safety and tolerability of sofosbuvir (SOF)-based direct-acting antivirals (DAAs) for patients with decompensated hepatitis C virus (HCV)–related cirrhosis in Taiwan by Su et al.[1] Although the authors performed a comprehensive literature review and patient assessment in their report, several other recent studies from Taiwan also corroborate the authors' findings about caring for patients with HCV in this special clinical setting.

Reimbursement for DAAs for HCV in Taiwan began in 2017; however, all approved regimens contained protease inhibitors, which are considered to be a contraindication for patients with decompensated cirrhosis. Generic SOF-based DAAs, an alternative treatment option for this vulnerable group of patients, can be offered in the form of out-of-pocket payments following health authority review. In our previous study, among 43 patients with Child-Pugh B or C cirrhosis, the sustained virologic response (SVR_{12}) rates using SOF in combination with ledipasvir (LDV), daclatasvir, and velpatasvir (VEL) with or without ribavirin (RBV) for 12 weeks were 80%, 100%, and 100%, respectively, indicating successful eradication of HCV in 90.7% of the patients.[2] The approval of SOF/LDV with RBV in 2018 substantially advanced HCV care by removing drug and financial barriers, although this genotype-specific regimen can be applied only to HCV genotype 1 infection. In another of our studies, a SVR_{12} was achieved in 23 of 26 (88.5%) patients who received brand-name SOF/LDV plus RBV for 12 weeks.[3] In June 2019, pangenotypic SOF/VEL was made available to HCV patients without restrictions. A subsequent multicenter study of 107 patients with Child-Pugh B or C cirrhosis reported SVR_{12} rates in evaluable and per-protocol populations of 89.7% and 100%, respectively, with SOF/VEL plus RBV for 12 weeks.[4] In addition, in another study of the most difficult-to-treat population with combined liver and kidney failure who were treated with full-dose SOF/VEL and renally adjusted RBV for 12 weeks, the SVR_{12} remained excellent under judicious monitoring.[5]

In line with the findings of Su et al, patient tolerability was generally good and the causal relationship between SOF-based DAAs and severe adverse events was limited in our studies.[2–5] This is particularly relevant for patients with decompensated HCV–related cirrhosis because a shortage of organs limits accessibility to transplantation. Although a significant proportion of patients with SVR_{12} have improved Child-Pugh and model for end-stage liver disease scores, a short-term state of score "purgatory" does not necessarily reflect long-term clinical improvement, and hence prudent surveillance is needed to secure long-term outcomes.[6,7] Furthermore, a recent survey of the general population indicated that the rate of HCV reinfection was low following treatment-induced SVR_{12}.[8]

Although treating patients with decompensated HCV–related cirrhosis remains challenging, the reports from Su et al and our group confirm the excellent antiviral responses and good tolerability of SOF-based DAA treatment in Taiwan. Based on the low risk of reinfection, healthcare providers should actively scale up screening and treatment for patients with HCV with a focus on health promotion and viral elimination.[9]

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*Address correspondence: Dr. Chen-Hua Liu, Department of Internal Medicine, National Taiwan University Hospital, 7, Chung-Shan South Road, Taipei 100, Taiwan, ROC. E-mail address: jacque_liu@mail2000.com.tw (C.-H. Liu).

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